



## **Strengthening Inclusive Governance in the Development of Edutourism-Based Tourism Destinations in Mangrove Tourism in Dumai City**

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### **ABSTRACT**

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This study examines inclusive governance in Dumai's mangrove tourism through three dimensions: accessibility and equity, transparency and accountability, and participation and negotiation space. A qualitative case study approach was employed using semi-structured interviews with ten purposively selected stakeholders from government, community groups (KTH), tourism managers, private sector actors, and local leaders, supported by focus group discussions (FGDs), participant observation, and document analysis. Findings based on NVivo 12 Plus thematic coding frequencies show that accessibility–equity and transparency–accountability each account for approximately 50% of governance dynamics, indicating uneven implementation. Physical accessibility remains limited due to the absence of disability-friendly infrastructure and difficult mangrove terrain, restricting access for elderly and female visitors. Economic equity is weak, as tourism benefits are unevenly distributed and dominated by external actors, while transparency and accountability remain partial due to limited financial disclosure and personalised leadership. In contrast, participation and negotiation space accounts for only 30%, indicating instrumental community involvement and the marginalisation of vulnerable groups. Overall, the study highlights persistent inclusivity gaps and imbalanced multi-level governance, underscoring the need for inclusive infrastructure, equitable benefit-sharing, and collaborative governance to support sustainable community-based edutourism.

## **1. INTRODUCTION**

Strengthening inclusive governance in the development of edutourism-based tourism destinations is a crucial strategy for ensuring sustainable tourism development. Inclusive governance emphasizes the principles of participation, transparency, accountability, and fairness by involving governments, local communities, industry players, academics, and tourists throughout the planning and evaluation process [1]. This approach aligns with the sustainable development agenda, which positions tourism as an instrument for community empowerment, cultural preservation, and environmental conservation [2].

Edutourism, as a form of tourism that combines recreation with learning, is increasingly relevant in this context because it is able to provide added economic value while increasing the knowledge capacity of the community [3]. However, the success of its development is largely determined by the quality of inclusive governance so that the community does not only become an object of development, but an active subject and receives a fair distribution of benefits [4]. Challenges such as weak coordination between actors, limited local capacity, and the dominance of short-term economic interests indicate the

need for a more participatory governance strengthening strategy.

Many studies have been conducted on sustainable tourism governance, particularly regarding the importance of community participation, benefit distribution, and social justice [5]. However, most studies still focus on economic and environmental aspects, while the educational dimension within the edutourism framework receives relatively little attention [6]. Furthermore, literature on inclusive tourism in Southeast Asia still tends to emphasize ecotourism or community-based tourism, rather than the integration of inclusive governance with edutourism [4].

Specifically in Indonesia, although there is research on mangrove tourism management for conservation and community empowerment [7], studies that deeply examine the relationship between inclusive governance and edutourism development are still very limited. Yet, integrating the two is crucial to ensuring the sustainability of tourist destinations, especially in areas with unique ecosystem potential such as mangroves. Therefore, this study fills this gap by examining the urgency of strengthening inclusive governance in the development of mangrove-based edutourism in Dumai City, a region that has yet to be comprehensively researched.

## 2. LITERATURE REVIEW

The concept of inclusive governance emerged as a response to the weaknesses of traditional governance, which tended to be elitist and exclusive. According to Annahar et al. [8], there are three main dimensions that serve as indicators of inclusive governance: accessibility and equity, transparency and accountability, and participation and expanding negotiation space. The first dimension, accessibility and equity, emphasizes the importance of equal opportunity for all social groups to access public services and participate without discrimination. This is rooted in the theory of distributive justice [9] and the concept of capabilities [10], which emphasizes that development can only be considered inclusive if marginalized groups receive fair space in decision-making [11].

The second dimension, transparency and accountability, is an essential requirement for preventing abuse of power and strengthening policy legitimacy. Transparency means open access to information and clear procedures [12], while accountability refers to the government's obligation to be accountable to the public for its decisions and actions. Transparency without accountability is merely a formality [13], while accountability without transparency has the potential to generate false legitimacy. Therefore, both must work synergistically to support inclusive governance. The third dimension, participation and negotiating space, emphasizes the importance of citizen involvement in every stage of policymaking in a deliberative, not merely symbolic, manner [14, 15]. Broad participatory space serves as an arena for negotiation and compromise that strengthens substantive democracy, reduces the potential for conflict, and enhances development sustainability [11, 16]. Thus, inclusive governance requires not only transparent administrative procedures but also equal access and deliberative space that allows communities to become active subjects of development [17].

## 3. METHOD

This research used a qualitative approach with an exploratory case study design to investigate inclusive governance in the development of mangrove-based edutourism in Dumai City. Data were collected through in-depth interviews, focus group discussions (FGDs), participant observation, and document and online media analysis, allowing for a comprehensive examination of governance interactions among various actors. Ten informants were purposively selected based on their institutional authority, role, and direct involvement in mangrove tourism governance. These informants included three government officials from the Dumai City Youth, Sports, and Tourism Office; three tourism managers and members of the Forest Farmers Group (KTH) responsible for mangrove forest management; one private sector representative from PT Pelindo (Persero) Regional Branch 1 Dumai; and three local community representatives, including traditional leaders.

To complement the interview data and facilitate collective validation of the findings, two FGDs were conducted, each involving 20 participants from government agencies, tourism managers, community organizations, youth groups, and local NGOs. Participant observation was conducted over a two-week period, during which researchers observed tourism

activities, stakeholder coordination meetings, and community-based management practices related to mangrove tourism. A semi-structured interview guide was developed based on inclusive governance principles, focusing on four analytical dimensions: participation (the form and intensity of stakeholder involvement in decision-making), transparency (access to information and openness of governance processes), accountability (clarity of roles, responsibilities, and oversight mechanisms), and distributive justice (fairness in the distribution of benefits derived from mangrove tourism development) [18, 19]. Interviews and FGDs were audio-recorded with participants' consent and transcribed verbatim. Data were analyzed thematically using NVivo 12 Plus through an iterative coding process. Initial open coding was conducted to identify emerging concepts from the data, followed by axial coding to organize codes into categories aligned with the inclusive governance framework, and selective coding to generate overarching themes that explain governance dynamics and relationships among actors [20]. To ensure the reliability of the findings, methodological and source triangulation was applied by cross-checking interview and FGD data with observations, policy documents, and relevant online media sources [21].

## 4. RESULT AND DISCUSSION

### 4.1 Informants profile

To enhance methodological transparency and demonstrate the robustness of qualitative findings, this study involved purposive sampling of key stakeholders directly engaged in Dumai mangrove tourism governance. Informants represent government institutions, community-based organizations, local entrepreneurs, and civil society actors. The informants can be seen in Table 1.

### 4.2 Analysis of the dimensions of accessibility and equity in Dumai mangrove tourism management

This study found that accessibility to the Dumai mangrove tourism area remains limited, both physically and socially. Existing infrastructure is not yet accessible to people with disabilities, while the muddy condition of the mangrove ecosystem further exacerbates accessibility. The lack of inclusive design indicates that the principle of accessible design has not been a primary concern in destination management [22].

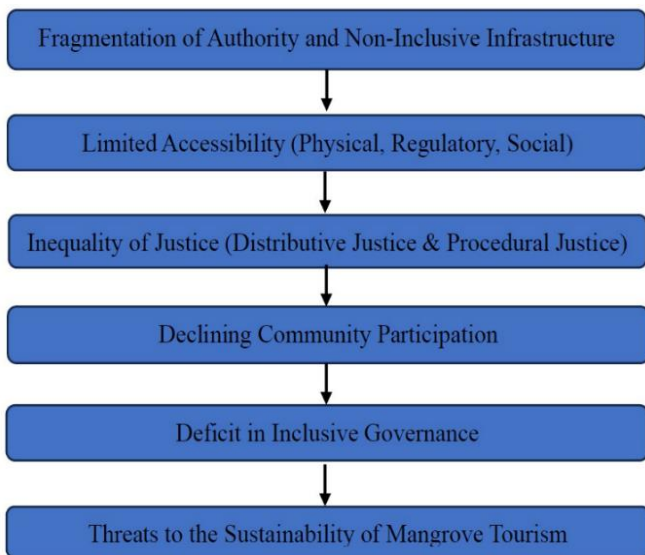
Figure 1 explains the analytical model of accessibility and equity in inclusive governance in Mangrove Tourism Management in Dumai City. First, limited physical access is a crucial issue. Basic infrastructure such as roads, bridges, and tourist facilities, is not yet friendly to vulnerable groups, especially people with disabilities. The muddy condition of the mangrove ecosystem further worsens mobility, while inclusive infrastructure innovations are almost non-existent.

Interview Evidence Supporting Limited Accessibility in Dumai Mangrove Tourism:

*“Access to the mangrove tourism area is still very difficult, especially for elderly visitors or people with disabilities. The wooden paths are narrow, and in some sections they simply end. If it rains, the area becomes muddy and unsafe to walk through.”* (Community member, Mangrove Guide)

**Table 1. Informants**

Institutional Role	Sector	Gender	Years of Involvement	Key Role in Governance
Head of the Dumai City Youth, Sports and Tourism Office	Government	Male	5 Years	Policy direction and inter-agency coordination, Technical planning and programme monitoring and Programme implementation and community facilitation
Secretary of the Dumai City Youth, Sports and Tourism Service	Government	Male	7 Years	Policy direction and inter-agency coordination, Technical planning and programme monitoring and Programme implementation and community facilitation
Head of Tourism Division of Dumai City	Government	Male	7 Years	Policy direction and inter-agency coordination, Technical planning and programme monitoring and Programme implementation and community facilitation
CSR Manager	Private (PT Pelindo)	Male	5 Years	Financial support, infrastructure, and capacity building
Head of Forest Farmers Group (KTH)	Community	Male	15 Years	Site-level management and community mobilisation
Secretary of Forest Farmers Group (KTH)	Community	Male	5 Years	Site-level management and community mobilisation
Mangrove Guide & KTH Member	Community	Male	5 Years	Site-level management and community mobilisation
Community Leaders	Community	Male	15 Years	Local knowledge transmission and intergenerational continuity
Youth Group Representative	Community	Male	5 Years	Local economic activities and service provision
MSME Actor	Community	Female	4 Years	Digital promotion and innovation



**Figure 1.** Analysis model of accessibility and equity in inclusive governance



**Figure 2.** Disconnected access infrastructure at the Dumai city mangrove tourism

Figure 2 depicts a disconnected segment of tourism infrastructure in the Dumai mangrove forest area, illustrating the limited application of universal design principles to site management [23]. The image shows a narrow concrete platform that ends abruptly without a continuous walkway or transition path, leaving the surrounding area accessible only through muddy, uneven mangrove terrain with exposed roots. Such conditions significantly limit mobility and pose safety risks, particularly for people with disabilities, elderly visitors, and women. The absence of handrails, non-slip surfaces, safety railings, and directional signs further reinforces the exclusionary nature of the infrastructure.

This is reinforced by the statement by the informant: “There are no handrails, ramps, or clear pathways connecting one spot to another. The infrastructure exists, but it is not integrated, so access is limited to physically fit visitors.” (Local MSME actor)

Rather than facilitating movement between educational or recreational points, the structure functions as an isolated element, demonstrating fragmented planning and weak coordination between actors. The apparent lack of maintenance and integration with the surrounding landscape underscores the limited consideration of diverse user needs in tourism development. This image provides visual evidence supporting the research findings on limited accessibility and reinforces the broader argument that governance practices in the Dumai mangrove tourism area have not yet internalized inclusive design standards and universal accessibility.

Second, in terms of social access and equitable distribution of benefits, local communities still face structural discrimination. There are indications that it is easier for outsiders to obtain business permits, for example, to open cafes or restaurants within mangrove areas, while local communities face regulatory obstacles due to the area's status as a Limited Production Forest (HPT). This phenomenon demonstrates a power asymmetry between local and external actors, which not only creates inequity in the distribution of economic benefits but also diminishes the community's sense of ownership of the area [18, 24]. When justice is not met, local community participation tends to be instrumental and short-term, for example only increasing when there are

financial incentives.

Third, institutional access is also problematic due to fragmented authority. Since the beginning of management in 1999, local communities have actually taken the initiative to protect the area through a community-based model. However, formal recognition of this management remains hampered by overlapping authority between the Ministry, the National Land Agency (BPN), and state-owned enterprises (BUMN). This situation creates regulatory uncertainty that weakens the community's bargaining position in obtaining legal legitimacy, such as tourism village status or village-owned enterprise (BUMDes) institutions. The lack of regulatory certainty not only hinders equitable access to resources but also limits the community's opportunities to develop sustainable edutourism business models [25].

Fourth, this inequality in access and equity has broader social impacts, including a decline in community participation and ownership of the destination. As the interviews demonstrated, when communities feel they are not receiving a fair distribution of benefits, their involvement in protecting the area weakens. This aligns with the findings of inclusive governance theory, which emphasizes that inclusive governance can only be realized if all groups, especially local actors, have equal rights in accessing resources, facilities, and economic opportunities [11, 19].

Overall, the interview results indicate that the accessibility and equity dimensions of mangrove tourism management in Dumai City still fall short of the principle of inclusivity. Physical, social, and regulatory barriers demonstrate multi-level governance inequalities that marginalize local communities. Unless these issues are addressed through affirmative action policies, such as the development of disability-friendly infrastructure, regulatory protection for local community rights, and equitable benefit distribution mechanisms, the goal of sustainable, community-based edutourism will be difficult to achieve.

Table 2 explains that the physical accessibility of the Dumai mangrove tourism area is still low. Limited public transportation, damaged roads, and a lack of facilities such as boardwalks, piers, toilets, and trash cans make this area less tourist-friendly. Furthermore, weak digital access and limited tourism promotion further reduce the area's appeal, so mangrove tourism is not widely known at the regional or national levels. In terms of economic accessibility, ticket prices are actually affordable, but high transportation costs actually become a barrier for low-income communities. This demonstrates the economic barriers to equitable tourism access. On the other hand, social access is also not fully inclusive. Local community involvement does exist, but it is dominated by certain groups (community leaders or adult men), leaving women, youth, and vulnerable groups marginalized.

In terms of participatory justice, the decision-making process is largely controlled by local elites, resulting in less acknowledgment of the aspirations of the common people. Economic justice is also unequal, as tourism profits are largely controlled by major managers, while local MSMEs receive only limited benefits. This uneven distribution has the potential to widen the socio-economic gap between residents. Environmental justice is also a concern. Despite conservation efforts, destructive practices such as illegal logging and plastic waste disposal persist. This creates a conflict between ecological conservation goals and short-term economic interests. Furthermore, weak local regulations indicate that intergenerational justice is not guaranteed, putting the sustainability of Dumai's mangrove ecotourism at risk.

Overall, Dumai's mangrove tourism management demonstrates that accessibility and equity dimensions still have significant gaps compared to ideal conditions. This gap is evident in poor transportation and digital access, inequities in the distribution of economic benefits, elitist participation, and weak environmental protection.

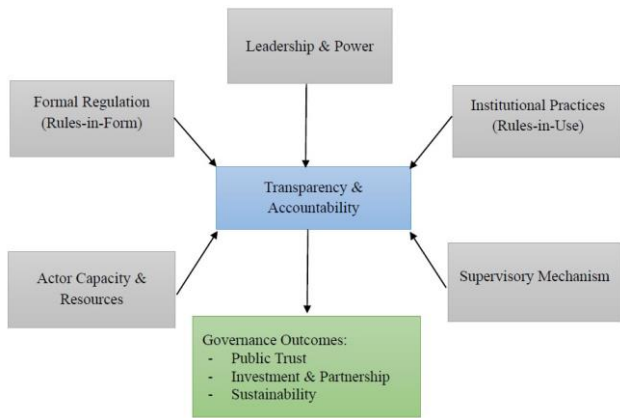
**Table 2.** Gap analysis of accessibility and justice dimensions in mangrove tourism governance in Dumai City

Dimension	Ideal Condition	Actual Condition	Main Gap
Physical Access	Adequate public transportation and roads, complete tourist facilities	Limited transportation, damaged roads, minimal boardwalks and piers	Difficult access, inadequate facilities
Digital Access	Active online promotions, strong signal	Limited promotions, weak signal	Low tourist attraction
Economic Access	Affordable prices for all levels	Cheap tickets, high transportation costs	Barriers for low-income communities
Social Access	All groups are involved	Dominated by local figures, gender bias	Participation is not yet inclusive
Participatory Justice	Inclusive Deliberation	Domination of Local Elites	The Aspirations of the Common People Are Ignored
Economic Justice	Equitable distribution of profits	Dominated by major managers, small MSMEs are limited	Benefits are not yet equitable
Environmental Justice	Strict conservation and sustainable ecotourism	Logging and waste still exist	Conservation-economic conflict
Intergenerational Justice	Strong Regulations for Mangrove Heritage	Awareness Exists, Regulations Weak	Sustainability Under Threat
Inclusive Justice	Vulnerable groups are actively represented	Minimal involvement	Structural injustice

### 4.3 Analysis of the dimensions of transparency and accountability in Dumai mangrove tourism management

Transparency and accountability are structural problems in mangrove tourism governance because the issues are not merely technical but deeply rooted in institutional and regulatory systems. Openness of information regarding permits, budgets, and benefit distribution is often limited,

creating information asymmetries between the government, managers, and local communities. Furthermore, accountability mechanisms remain weak due to overlapping authority between agencies, a lack of independent evaluation, and the dominance of certain interests. This situation creates unclear roles, potential conflict, and low public trust, thus hampering the goals of sustainability and community empowerment in mangrove tourism management.



**Figure 3.** Transparency and accountability in inclusive governance

Figure 3 describes several issues in mangrove management in Dumai City. First, the issue of financial transparency is a dominant issue. For both ticket revenue, parking, and tourism activities, recording and reporting mechanisms are not functioning properly. Reports are often informal through internal communication groups, rather than using official instruments accessible to the public. This situation has led to mistrust among members, reduced the group's legitimacy, and weakened the trust of the community and external investors. This is in line with the findings by Fox [12], which emphasize that partial transparency without a strong accountability system actually weakens institutional legitimacy.

Interview data reveal that transparency in financial management remains largely informal. Revenue reporting relies on internal messaging platforms rather than publicly accessible records. *“There is no written financial report. Usually, income is just shared through WhatsApp groups.”* (Secretary of Forest Farmers Group (KTH)).

This lack of formal reporting mechanisms undermines institutional legitimacy and public trust. Accountability mechanisms are similarly weak, emerging only when external pressure is applied. *“We only become accountable when donors or government demand reports. Otherwise, no one asks.”* (Secretary of Forest Farmers Group (KTH)).

Second, institutional accountability remains minimal. Relations with local governments are more about notifications than systematic reporting, thus failing to meet the principles of answerability and enforceability outlined. Accountability only emerges when external pressure arises, either from international donors (e.g., Norway's support for the Wanawi Ata group) or from local governments, which require improved governance before providing assistance. This indicates that accountability does not emerge as an internal awareness, but rather as a result of compliance due to structural pressures (compliance accountability).

Third, interviews also revealed the dominance of central figures in group leadership. The concentration of power in certain individuals hinders the deliberative process and closes off space for collective accountability. This leadership model exhibits symptoms of personalized governance, which tends to create asymmetry of power between group elites and members. This condition has implications for inhibiting participation and internal oversight, which aligns with criticisms [26] of the weak institutionalization of governance at the community level.

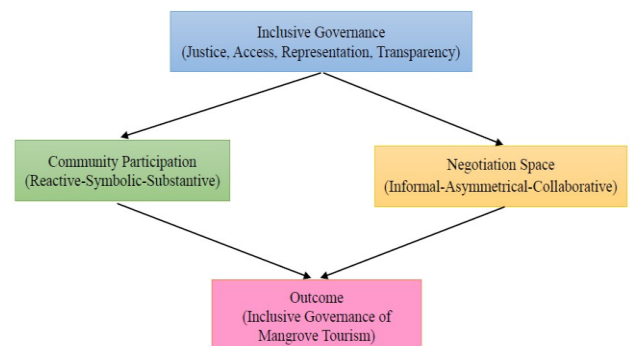
Fourth, the emergence of new initiatives such as the Wanawiyata Widyakarya Pariwisata group demonstrates

potential for improvement. Routine financial recording and open publication are steps toward transparent governance. However, these efforts remain partial and have not yet become entrenched as institutional norms. Without clear local regulations (village/regional regulations), these practices risk becoming unsustainable and dependent solely on individual initiative or donor pressure. In the context of new institutionalism theory, this situation demonstrates that formal norms and rules (rules-in-form) remain weak, while actual practices (rules-in-use) are heavily influenced by local power relations [25].

Overall, this analysis demonstrates that the lack of transparency and accountability in mangrove tourism management is not simply a technical issue of financial reporting, but rather a reflection of a deeper institutional deficit. Without strengthened local regulations, participatory monitoring systems, and collective accountability mechanisms, governance will remain vulnerable to individual domination and dependence on external intervention. Therefore, strengthening transparency and accountability is not only a prerequisite for institutional legitimacy but also a key factor for the sustainability of edutourism destinations.

#### 4.4 Analysis of the participation and negotiation in Dumai mangrove tourism management

Community participation in Dumai's mangrove tourism management has been facilitated through formal organizations such as Forest Farmer Groups (KTH) and Tourism Awareness Groups (Pokdarwis). However, this participation remains limited, reactive, and partial. Communities tend to engage actively only when there are short-term economic incentives, such as planting activities, research, or tourism events. Inclusive governance, based on the principles of equality, access, representation, and transparency, is the main foundation of mangrove tourism management. These principles foster two key elements: community participation and a space for negotiation between actors. Community participation is not merely symbolic but also substantive, with communities actively involved in decision-making processes. Furthermore, the space for negotiation enables interactions between government, the private sector, and communities, ranging from informal to collaborative communication, regardless of differences in interests and power. This interaction between community participation and the space for negotiation is mutually reinforcing, ultimately resulting in inclusive mangrove tourism governance that accommodates diverse interests in a fair and sustainable manner. This can be seen in Figure 4.



**Figure 4.** Participation and negotiation space in inclusive governance of Dumai mangrove tourism

This situation illustrates the phenomenon of instrumental participation [18]. Community involvement is driven not by collective awareness but by pragmatic gain. As a result, informal weekly meetings fail to serve as a strategic deliberation space for developing a long-term vision for area management. In terms of representation, women's involvement has begun to emerge, but remains minimal, while vulnerable groups and people with disabilities are largely invisible. This indicates that participation does not yet reflect the principles of inclusive governance, which emphasize equal access and equal participation [19]. Unequal representation creates a form of tokenistic participation, where the presence of certain groups is merely symbolic and lacks real bargaining power in decision-making.

Negotiation space is actually open through collaboration with external actors such as universities, ministries, and maritime organizations, which play a role in supporting research, innovation, and promoting edutourism. However, the absence of clear regulations regarding the Dumai Regional Government's authority in managing HPT areas has become a structural obstacle. Without a clear legal framework, the results of cross-actor negotiations are difficult to implement, so dialogue tends to stall at the level of ideas without concrete follow-up. This situation aligns with findings of Ostrom [25] that weak institutions will narrow the space for collaboration and reduce the effectiveness of common-pool resource governance.

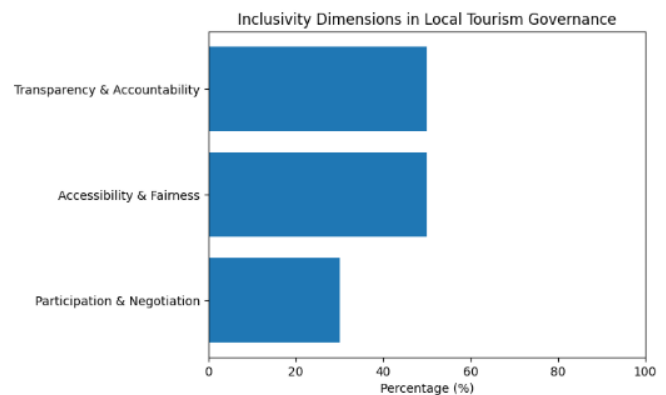
In addition to regulatory factors, the dominance of certain actors and conflicts of interest, such as disputes over land and cafe buildings, narrow the space for dialogue and undermine trust between actors. This creates an asymmetric negotiation arena [15] where the space for participation favors those with greater social and economic capital. As a result, the participation process does not function as an arena for inclusive deliberation, but rather as a contestation of narrow interests.

Furthermore, interviews confirmed that internal resistance and primordial loyalties also hampered strengthening participation. Yet, the involvement of local MSMEs and small traders holds significant potential for strengthening the community-based edutourism ecosystem. If mobilized through a community empowerment approach, their participation could become a strategic instrument for expanding the negotiating space from a mere group forum to a collaborative governance platform that unites the interests of government, academics, the community, and the private sector.

Thus, community participation in Dumai mangrove tourism is currently still at a low level of formality and has not yet achieved substantive quality. Three main issues that have emerged are: (1) limited access and representation of vulnerable groups, (2) weak institutionalization of regulations and institutional accountability, and (3) the dominance of certain actors that narrow the space for negotiation. Therefore, strengthening inclusive governance requires a multi-level strategy: improving institutional design through regulatory harmonization, expanding the space for substantive participation by ensuring representation of all social groups, and building collaborative negotiation mechanisms oriented towards long-term public interests.

Figure 5 presents the relative distribution of inclusive governance dimensions in Dumai mangrove tourism management, based on thematic coding results. Participation and negotiation account for 30%, while accessibility–fairness and transparency–accountability each account for 50%. The

percentages shown in Figure 5 are derived from NVivo 12 Plus coding frequencies, calculated based on the proportion of references associated with each inclusive governance dimension across all interviews and FGD transcripts.



**Figure 5.** Inclusivity dimensions in local tourism governance of Dumai Mangrove Tourism

Source: NVivo 12 Plus coding analysis of interview and FGD data

This study has several limitations that should be acknowledged. First, it is based on a single qualitative case study with a relatively limited number of informants, which may not fully capture the diversity of perspectives within the Dumai mangrove tourism governance network. Second, the selection of informants, primarily involving government officials, tourism managers, private sector actors, and organized community groups, may introduce selection bias, potentially underrepresenting informal workers, people with disabilities, and other marginalized stakeholders. Third, data collection was conducted over a relatively short period of time, meaning that changes in policy, leadership, or tourism dynamics that occurred after the study period are not reflected in the findings. Finally, as a context-specific case, the results are not intended to be statistically generalizable, but rather to provide analytical insights that may be applicable to similar community-based tourism settings.

## 5. CONCLUSION

The management of this area still faces structural problems across three main dimensions: accessibility and equity, transparency and accountability, and participation and spatial negotiation. In terms of accessibility, limited disability-friendly infrastructure, regulatory barriers, and unfair distribution of benefits marginalize local communities, thereby diminishing their sense of ownership of the area. In terms of transparency and accountability, weak reporting mechanisms, the dominance of central figures, and reliance on external intervention indicate a fundamental institutional deficit, eroding the legitimacy of vulnerable management groups. Meanwhile, community participation remains instrumental and partial, with minimal representation of vulnerable groups, the dominance of certain actors, and unequal negotiation space due to regulatory fragmentation and conflicts of interest. Overall, these conditions demonstrate the failure to realize the principles of inclusive governance that emphasize equal access, fair distribution of benefits, institutional accountability, and substantive participation among actors. Without interventions in the form of affirmative policies, regulatory harmonization, strengthening local

institutions, and collaborative mechanisms oriented toward long-term public interests, the development of community-based educational tourism in the Dumai mangrove area will struggle to achieve sustainability.

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